

DIVISION 3 PRODUCTION FROM QUARRY AND PIT SITES AND STOCKPILING

3-01 PRODUCTION FROM QUARRY AND PIT SITES

3-01.1 Description

This Work shall consist of manufacturing and producing crushed and screened aggregates including pit run aggregates of the kind, quality, and grading specified for use in the construction of Portland cement concrete, hot mix asphalt, asphalt treated base, crushed surfacing, maintenance rock, ballast, gravel base, gravel backfill, gravel borrow, riprap, and bituminous surface treatments of all descriptions.

The requirements specified shall apply whether the source is ledge rock, talus, gravel, sand, or any combination thereof.

3-01.2 Material Sources, General Requirements

3-01.2(1) Approval of Source

Material sources must be approved in advance of use in the Work in accordance with the requirements of [Section 1-06](#). This approval of source may require sampling and testing. If sampling is required, the samples must be taken at locations designated and witnessed by the Engineer or a designated representative. The Contractor is responsible for providing representative preliminary samples of aggregate sources to the Engineer.

3-01.2(2) Preparation of Site

The portion of the quarry or pit site to be used shall be cleared and grubbed, and the area from which materials are to be taken shall be stripped of overburden as provided in [Section 3-01.2\(3\)](#). All combustible debris resulting from these operations shall be disposed of by the Contractor in a manner satisfactory to the Engineer.

3-01.2(3) Stripping Quarries and Pits

Stripping of quarries and pits shall consist of the removal, after clearing and grubbing, of the surface material and overburden which is unsuitable for the kind of material to be borrowed or produced for use. Materials from stripping, to be used later as provided on the site reclamation plan specified in [Section 3-03](#), shall be deposited within the quarry or pit site at such a location as not to interfere with future development within the site.

3-01.2(4) Production Requirements

All oversize stones, rock fragments, or boulders occurring in the source, up to and including those measuring 18-inches in the greatest dimension, shall be utilized in the manufacture of crushed material.

If the grading or quality of raw material in sources used for the manufacture of products covered by this section is such that the fracture, grading, or quality of the product specified cannot be obtained by utilizing the natural material, fine portions of the raw material shall be rejected to the extent necessary to produce products meeting all requirements of these Specifications. Failure of the Contracting Agency to include a scalping requirement in the Special Provisions shall not relieve the Contractor of the responsibility for rejecting fine portions of the material if such becomes necessary to

produce products meeting all requirements of these Specifications. Scalping shall be performed after the pit-run or quarry-run material has passed through the primary crusher.

When scalping over a screen of a specified size is required in the Special Provisions, the scalping screen shall be of such size and capacity that enough of the fine material will be removed to produce Work that conforms to the Specifications.

Washing and reclaiming of the reject material and subsequent addition of this material to any finished products will not be allowed unless specifically authorized in writing by the Engineer.

Surplus screenings accumulated during the crushing and screening of specified Roadway materials will be considered separate and distinct from reject material resulting from scalping operations.

Both fine and coarse concrete aggregates shall be thoroughly washed in order to remove clay, loam, alkali, bark, sticks, organic castings, or other deleterious matter. Washing will be required in the production of other materials if necessary to produce products meeting all the quality requirements of these Specifications.

When producing screened gravel or sand materials, the Contractor shall remove all oversize material by screening at the pit site. The Contractor's operations in the pit shall be conducted so that the grading of individual loads will be reasonably uniform. In general, the Contractor shall utilize the most suitable materials available and shall make as many moves of the loading equipment as may be necessary to fulfill these requirements.

Where pit-run materials meet Specifications, screening or processing will not be required.

3-01.2(5) Final Cleanup

Upon completion of the Contractor's operation, the quarry or pit shall be cleared of all rubbish, temporary Structures, and equipment, and shall be left in a neat and presentable condition. The pit or quarry shall be reclaimed in accordance with the approved site reclamation plan specified in [Section 3-03](#).

3-01.3 State Furnished Material Sources

Unless specified in the Special Provisions, no Contracting Agency material sources are provided and the Contractor shall bear full responsibility for furnishing all materials.

3-01.3(1) Quality and Extent of Material

Contracting Agency furnished material sources will be shown in the Plans and described in the Special Provisions. The quality of material in such sources will be acceptable in general, but the Contractor shall determine the amount of Work required to produce the material meeting these Specifications. It shall be understood that it is not feasible to ascertain from samples, the limits for an entire source, and that variations shall be considered as usual and are to be expected. The Engineer may order procurement of material from any portion of a source and may reject portions of the source as unacceptable.

Since many material sources are acquired in fee by the Contracting Agency for use on future projects as well as for this Contract, it is in the public interest to preserve the future usefulness and adequacy of a source insofar as may be practical. To achieve this end, the Contractor shall not perform any Work within the source until receiving the Engineer's approval of the Contractor's work plan within the limits of the source.

3-01.3(2) When More Than One Site Is Provided

When more than one quarry or pit site is provided in the Special Provisions, the Contractor may obtain material from any of the sources. The Contracting Agency will specify the quantity of raw material available, as determined by tests, in each quarry or pit site. If the Contractor sets up in a site, and it is found that the quantity of raw material from that site, when the site is exhausted, is less than that specified by the Contracting Agency, then the provisions of [Section 3-01.3\(5\)](#) will apply.

3-01.3(3) Reject Materials

All scalplings that are unsatisfactory for use under these Specifications or Special Provisions shall be considered as reject material, subject to disposal as approved by the Engineer. Reject material shall be placed at such a location as not to interfere with future development within the site.

3-01.3(4) Surplus Screenings

The surplus screenings accumulated during the production of the specified materials shall be stockpiled at a location within the site provided and become the property of the Contracting Agency. The stockpile site shall be prepared and constructed by the Contractor in accordance with the provisions of [Section 3-02](#). All costs incurred in producing, hauling, and stockpiling the surplus screenings shall be incidental to the production of the specified materials and shall be included by the Contractor in the unit Bid prices in the Contract.

3-01.3(5) Moving Plant

If, in the opinion of the Engineer, there should be insufficient suitable material in any quarry or pit site made available by the Contracting Agency, the Contracting Agency will acquire at its expense an additional source, in which event the Contractor will be required to move the crushing plant to the new quarry or site. Under such conditions, payment for the Contractor's costs for the move will be made on a force account basis. Payment will be limited to the labor, equipment, and materials required for the move, and no allowance will be made for payment of standby costs for the crushing plant nor other equipment which may be temporarily idle as a result of the move.

The clearing, grubbing, and preparing of the new quarries or pit sites as specified in [Section 3-01.2\(2\)](#) will be paid for in the manner provided in these Specifications for "Clearing", "Grubbing", and "Stripping Including Haul". If there is no Bid item applicable, the payment for the preparation of the new site will be as provided in [Section 1-04.4](#).

If the moving of the plant due to shortage of the supply of material necessitates a longer haul on materials than required from the original source, the Contracting Agency will reimburse the Contractor for the additional haul at the rate of \$0.25-per ton mile haul. The unit ton-mile shall be the equivalent of one ton of material hauled a distance of 1-mile. The haul distance will be measured in one-half mile units, fractional half-miles being allowed as full half-miles. If the requirement for moving of the crushing plant results in a delay of performance of Work which is critical to completion of the project, as shown by the Contractor's approved progress schedule, the Engineer will authorize a suspension of Work for the time required for the move.

The above allowances, insofar as they may be applicable, shall be full pay for all claims of any kind or description by reason of the necessity of changing from one site to another due to shortage of the supply from sources made available by the Contracting Agency. Before moving a crushing plant as outlined above, the Contractor shall secure from the Engineer an order in writing to do so. Should the Contractor fail to secure such order, it shall be considered sufficient proof that the move was immaterial insofar as to cost, and no allowance or pay will be made by reason of such move.

3-01.4 Contractor Furnished Material Sources

3-01.4(1) Acquisition and Development

If, under the terms of the Contract, the Contractor is required to provide a source of materials, or if the Contractor elects to use materials from sources other than those provided by the Contracting Agency, the Contractor shall, at no expense to the Contracting Agency, make all necessary arrangements for obtaining the material and shall ensure the quantity of suitable material is available. Preliminary samples shall be taken by or in the presence of the Engineer or a designated representative unless the Engineer permits otherwise. Approval of the source does not relieve the Contractor from meeting these Specification requirements, nor does it guarantee that the material will meet these requirements without additional or proper processing. The Engineer may require additional preliminary samples at any time.

Approval of a Contractor's source offered in lieu of a Contracting Agency-provided source will be contingent upon the material therein being of equal quality, and no additional costs will accrue to the Contracting Agency as a result of such approval. Equivalency of quality will be based on those test values listed in the Special Provisions as being representative of material in the Contracting Agency-provided source. If no such values are listed, the minimum Specification requirements will apply. When measurement by weight is specified and when the specific gravity of material produced from the Contractor's source is greater than that from the Contracting Agency-furnished source, any additional material required to construct the minimum specified surfacing depth shall be furnished by the Contractor at no expense to the Contracting Agency.

The Contractor shall notify the State Departments of Ecology, Fish and Wildlife, and Natural Resources, in writing, of the intent to furnish the source, and shall, at no expense to the Contracting Agency, make all necessary arrangements with these agencies for the determinations of regulations which might be imposed upon the Contractor during removal of materials from the source.

The source shall be selected so that, after the materials have been removed, the pit will drain to a natural drainage course and no ponding will result. Should the source selected by the Contractor be one which would not drain as outlined herein, permission shall be obtained by the Contractor from the governing body of the city or county for the removal of materials from the pit or quarry.

The Contractor will not be permitted to operate a pit or a quarry site visible from a State Highway unless it can be demonstrated to the complete satisfaction of the Engineer that no unsightly condition will result from or remain as a result of the Contractor's operations. If, in the opinion of the Engineer, unsightly conditions exist after removal of materials from the site, the Contractor shall correct such unsightly conditions as hereinafter provided.

Following removal of materials from the pit, the entire site shall be cleared of all rubbish, temporary Structures, and equipment which have resulted from the Contractor's occupancy and operations. The Contractor shall obliterate or screen to the satisfaction of the Engineer any unsightly conditions that remain. The Contractor shall secure a written release from the permitter upon fulfillment of these requirements. All costs for cleaning up the pit site and for the installation or erection of screening or for other work required to correct unsightly conditions shall be at the Contractor's expense. The requirements of this paragraph shall not apply to pits being operated commercially.

All costs in connection with acquiring the rights to take materials from the source, for exploring and developing the site, for complying with the regulations of the aforesaid State agencies, for preparing the site as provided in Sections 3-01.2(2) and 3-03, for cleaning up the site, and for correcting unsightly conditions, shall be included in the unit Contract prices for the various pay items of Work involved.

3-01.4(2) Surplus Screenings

Surplus screenings accumulated during the manufacture of specified material shall remain the property of the Contractor.

3-01.4(3) Substitution of Gravel Deposit in Lieu of Ledge Rock or Talus Source Provided by the Contracting Agency

If the Contractor elects to substitute a gravel deposit of an approved source for the manufacture of ballast, crushed surfacing, or mineral aggregate in lieu of a ledge rock or talus source provided by the Contracting Agency in the Contract, all pit run materials passing a ½-inch square sieve, or larger if ordered by the Engineer, shall be removed prior to crushing.

3-01.4(4) Gravel Base

If the Contract requires the Contractor to provide the source of Gravel Base, or if the Contractor elects to furnish said material from sources other than those provided by the Contracting Agency, the material shall be produced from approved sources in accordance with the requirements of Section 3-01. The grading and quality shall be as specified in Section 9-03.10.

When Gravel Base is specified, Gravel Borrow may be used in lieu of Gravel Base provided the stabilometer value of the Gravel Borrow is a minimum of 67 and 0.1-foot of crushed surfacing top course is substituted for the top 0.1-foot of the depth specified for Gravel Base.

Measurement and payment will be in accordance with Section 4-02.

3-01.5 Measurement

For payment purposes, all crushed, screened, or naturally occurring materials that are to be paid for by the ton, dependent upon their grading, will be limited to the following water contents naturally occurring in the material source:

% By Weight Passing U.S. No. 4	Maximum Water Content % By Weight
Less than 20%	4%
20% or more	8%

Water in excess of the maximum permissible amounts naturally occurring in the material source, as determined by the Engineer, will be deducted from the tonnage of material to be paid for on a daily basis.

If the Contractor uses the Central Plant Mix Method of mixing water and surfacing materials in accordance with [Section 4-04](#), the added water will be measured in accordance with [Section 4-04.4](#). All other water added to the materials by the Contractor will be deducted from the weight of the aggregates including the added water, on a daily basis.

Clearing and grubbing of quarries and pit sites will be measured in accordance with [Section 2-01](#) when the Proposal includes such Bid items and such Work is required on a source provided by the Contracting Agency, except as modified in [Section 3-01.3\(5\)](#).

Stripping of quarries and pit sites will be measured in cubic yards in its original position by cross-sectioning when the Proposal includes such Bid item and such stripping is required on a source provided by the Contracting Agency, except as modified in [Section 3-01.3\(5\)](#).

Measurement of the particular materials or aggregates to be produced will be as specified in the appropriate section of these Specifications.

3-01.6 Payment

All costs, except as specified, in connection with the production of materials meeting all quality requirements of these Specifications shall be included in the unit Contract prices of the various Bid items involved.

Clearing and grubbing of quarries and pit sites will be paid in accordance with [Section 2-01](#) when the Proposal includes such Bid items and such Work is required on a source provided by the Contracting Agency, except as modified in [Section 3-01.3\(5\)](#).

“Stripping Incl. Haul” will be paid for at the unit Contract price per cubic yard when the Proposal includes such Bid item and such stripping is required on a source provided by the Contracting Agency, except as modified in [Section 3-01.3\(5\)](#).